

## REMARKS

Reconsideration is respectfully requested.

The Office Action indicates that an Abstract of the Disclosure is missing in the filed application. In response, the Abstract of the Disclosure is submitted herewith.

Claims 1-12 and 16-21, currently pending, stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,935,249 (Stern et al.).

The Applicant respectfully disagrees with the assertion made in the Office Action that Stern et al. describes a “virtual message processor” as defined in Claim 1, 16, and 18.

As discussed in the Specification page 6, lines 2-3 of the present application, a virtual machine is a computer, which is programmed to emulate a hypothetical computer. This means that different incompatible computers (incompatible hardware and operating systems) may be programmed to emulate the same hypothetical computer. Applications may then be written for the hypothetical computer, which are therefore portable to the previously incompatible computers. Unlike the present application, the Stern et al. reference provides a conventional virtual machine as is known in the art.

The present invention, on the other hand, does not describe a conventional virtual machine, but an addition to a conventional virtual machine. There is a conventional virtual processor, being the “function processor”, which together with the HAL and the instructions to operate it (“primitives”), controls the overall operation of the communications device. In addition, however, a separate virtual processor, the virtual message processor, is provided, the specific function of which is to disassemble, assemble, and compare messages.

The virtual machine architecture of the present invention, therefore, is not conventional. It includes two virtual processors (and three in the preferred embodiment where a protocol processor is also provided).

By a single call, the virtual function processor can call the virtual message processor (see the description of Fig. 3, commencing on page 21, where the SAVE instruction calls the message processor) in order to deal with the message. If message handling was carried out by the function processor (conventional virtual machine), the operation would be slower. It would be necessary for separate instructions for the message handling process to be provided to the conventional virtual processor. By specifically arranging a message processor (being a series of subroutines purely for handling message), the operation runs faster.

With particular reference to column 6, lines 53-59 of the Stern et al. reference, it can be seen that the control logic, which controls the transmission of messages, is described as being implemented using “standard discreet chipsets or other circuit devices.” Thus, what may be referred to as a “message processor” in the Stern et al. reference is actually implemented in hardware. This goes against the main aim of the present invention, which is to provide an improved virtual machine that is portable and not reliant upon particular hardware being present.

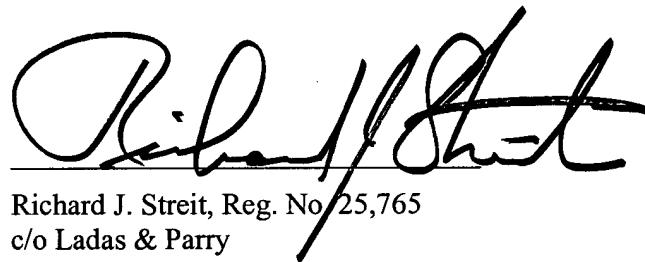
Thus, the Applicant respectfully submits that independent Claims 1, 16, and 18 are considered to be in condition for allowance and respectfully requests an indication thereof.

As to dependent Claims 2-12, 17, and 19-21, the Applicant respectfully submits that these Claims are allowable at least since they are dependent on one of the independent Claims 1, 16, and 18 that are considered to be allowable.

For the reasons set forth above, the Applicant respectfully submits that the Claims 1-12 and 16-21, pending in this application, are in condition for allowance over the art of record. This Amendment is considered to be responsive to all points raised in the Office Action. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter. Should the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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Richard J. Streit, Reg. No. 25,765  
c/o Ladas & Parry  
224 South Michigan Avenue  
Chicago, Illinois 60604  
(312) 427-1300